

Metástases musculares – a propósito de um caso clínico com revisão de literatura

Skeletal muscle metastases: case report and literature review

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Resumo

As metástases musculares à distância são uma forma de metastização raramente encontrada na prática clínica. Apresentam-se tipicamente como massas dolorosas e são detectadas sobretudo em contexto de doença disseminada. O tumor primário mais frequentemente descrito é o do pulmão, sendo o adenocarcinoma o tipo histológico mais prevalente.

Os autores descrevem o caso de uma doente romena de 40 anos de idade, a quem foi diagnosticada metastização difusa em localização muscular, sendo o tumor primário um adenocarcinoma pouco diferenciado do pulmão. Foi realizada revisão da literatura.

Palavras-chave: Metástases musculares, adenocarcinoma, pulmão, PET/TC.

Abstract

Skeletal muscle metastases are very seldom encountered in clinical practice. Their typical presentation is of painful masses occurring mainly in widespread diseases. The primary tumor location described more often is the lung, namely the adenocarcinoma histological type.

The authors report a case of a 40 year old Romanian woman, diagnosed with diffuse metastatic disease, including metastases to the skeletal muscle. The primary tumor was found to be a poorly differentiated adenocarcinoma of the lung. Literature revision was performed.

Key words: Skeletal muscle metastases, adenocarcinoma, lung, PET-CT.

INTRODUCTION

Lung tumors can metastasize to endless places in the human body. However, skeletal muscle metastases occurrence is very rare, in spite of the muscle tissue representing a high percentage of body mass.

CASE REPORT

40 years old female patient, born in Romania, residing in Portugal for 4 years went to the SU (Emergency Service) of North Lisbon Hospital Centre (NLHC) due to lumbar pain on the right evolving for around a week. She mentioned a significant weight loss (over 10 kg in just 2 months – above 10% of her weight) and unspecific malaise. She has smoking habits above 30 pack years and moderate alcohol habits. Without relevant personal or family medical background.

The objective exam revealed hepatomegaly and deep abdominal palpation in the right hypochondrium triggered by intense pain spreading to the lumbar region. The analytical control carried out has revealed an anemia suggestive of chronic inflammatory disease, increase of dehydrogenase lactate and high C-reactive protein. The abdominal ultrasound has shown bilateral adrenal masses, on the right with 13cmx7cm of a cystic and solid nature compressing the liver and on the left with 7 cmx3cm of solid nature. The body CT scan has identified a pulmonary node in the upper lobe of the right lung, two hepatic nodules and has confirmed the characteristics of the masses detected by ultrasound. Without evidence of mediastinal, abdominal or pelvic adenopathy. She underwent bronchofiberscopy with negative cytology for neoplastic cells being technically impossible to carry out a biopsy of the lesion identified by imageology. Additional tests were carried out which excluded the breast, genital-urinary and gastrointestinal tract as locations of a primary tumor.

PET-CT (positron emission tomography with computerized tomography) (Figure 1) with capture of contrast in cervical and left inguinal adenopathies and bilateral in axillary, lumbo-aortic nodules, right lung nodule and bilateral adrenal glands with a central necrotic area on the right and in multiple muscular

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groups of the dorsal region, deltoid and right pectoral, intercostal and gluteal muscles. A cervical nodule was subject to biopsy with a pathological anatomical test with pulmonary adenocarcinoma poorly differentiated positive for CK7 and TTF1, and negative for CD56 and GCDFP15.

Despite of starting chemotherapy with cisplatin and gemcitabine the disease evolved with a marked increase of the cervical ganglia. The patient was subject to palliative cervical radiotherapy and it was started a chemotherapy protocol of second line with, vinorelbine without any response. Subsequently the patient has developed an upper vena cava syndrome and died less than six months after the diagnosis.

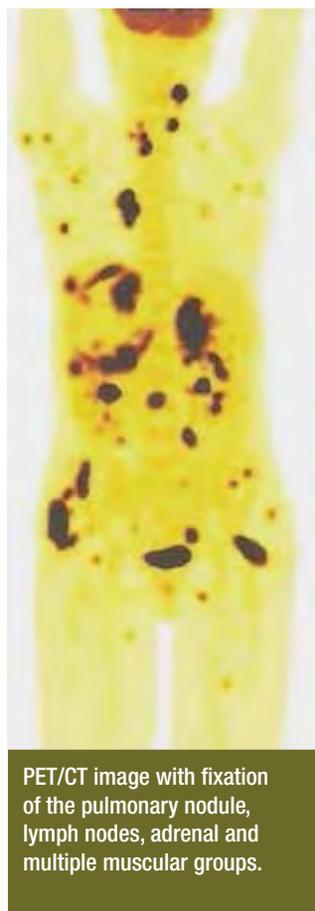
DISCUSSION/CONCLUSION

This case has a particularity of detection of muscular metastases of the lung adenocarcinoma, diagnosed in the detection of muscular metastases of the lung adenocarcinoma, diagnosed while the investigation of bilateral adrenal masses. It was not considered necessary to carry out additional muscular biopsies, once the diagnosis was robust with concurring imageology results.

In the review of literature, the lung tumor was the primary tumor more often associated to distance muscular metastases,¹ being the adenocarcinoma the most prevalent histologic type.^{1,2} This form of metastization was described in 0.8 to 16% in different autopsies series, but it is difficult to ascertain its actual frequency, due to the limited number of published cases.³

Common locations of muscular metastases are the muscles of the thighs and hips, gluteal and triceps with the lower limbs being the most affected.¹ It is usually presented as a painful mass, raising as differential diagnosis the soft tissues sarcoma^{1,4,5,6} and muscular abscess.^{1,2}

The pathophysiological mechanisms justifying the low frequency of this form of metastization were not yet identified, but factors as muscular metabolism,^{2,6} blood flow,^{2,6} oxygen tissue pressure,^{2,6} presence of



PET/CT image with fixation of the pulmonary nodule, lymph nodes, adrenal and multiple muscular groups.

FIG. 1

lactic acid,^{2,3,4,6} pH variable values^{2,4} and immunologic reactions⁶ seem to have an important role.

Due to the rarity of this presentation there are no recommendations to the approach of these patients. Radiotherapy seems to have some efficacy in pain control^{2,4} and palliative chemotherapy has been administered but with few results.⁵ In cases of widespread disease both modalities can be used isolated or in association.^{1,6} The excision of the muscular lesions can be an option in patients with good prognosis, unique metastases^{1,2,5} or pain that does not respond to analgesia.⁵

The presence of muscular metastases represents a factor of bad prognosis, probably because it is more often observed in the context of widespread disease.⁵ The average survival after diagnosis is just 5-6 months,^{1,6} as in the presented clinical case.

Once the PET-CT has been more and more used, it is likely that the detection of asymptomatic muscular metastases becomes more frequent. It is necessary to develop approach strategies directed to this group of patients. ■

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